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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/683,675	10/16/2003	Byung-youn Song	1793.1044	3461

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EXAMINER

WATKO, JULIE ANNE

ART UNIT	PAPER NUMBER
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2653

DATE MAILED: 03/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/683,675

Applicant(s)

SONG ET AL.

Examiner

Julie Anne Watko

Art Unit

2653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13 and 15-25 is/are rejected.
- 7) ☒ Claim(s) 12 and 14 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/16/2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>11/17/03, 11/10/04</u> . | 6) <input checked="" type="checkbox"/> Other: <u>IDS 01/27/05</u> . |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.
2. Applicant cannot rely upon the foreign priority papers to overcome ~~any~~ rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Drawings

3. Figures 2 and 8A-B should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 2653

6. Claims 8 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "close" in claim 8 is a relative term which renders the claim indefinite. The term "close" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim 15 is similarly indefinite.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1-8, 16-23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art in view of Matsui (US Pat. No. 5734638).

Art Unit: 2653

As recited in claims 1, 16 and 23, Applicant's admitted prior art shows an optical pickup actuator (see Applicant's Fig. 1) for an objective lens 42, comprising: a base 12; a wire holder 14 installed to the base; a bobbin 40 holding the objective lens; a first yoke 20' positioned between a first side of the bobbin and the wire holder; a second yoke 20 positioned opposing a second side of the bobbin, a plurality of suspension wires 44a-b each having one end fixed to the wire holder and an other end movably supporting the bobbin, and a magnetic driving unit (including coils and magnets) driving the bobbin in focusing and tracking directions.

As recited in claims 1, 16 and 23, Applicant's admitted prior art is silent regarding a damping member insertable into an opening in the first yoke.

Matsui shows a damping box 18 rigidly attached to a yoke 26 (see Fig. 2A, for example).

There is no invention in making one-piece integral that which was already known to be plural members rigidly attached, absent a showing that the integration involved greater than ordinary skill in the art in combination with unexpected results due to the claimed integration. *In re Fridolph* 135 USPQ 319 (CCPA 1962). Moreover, use of one piece construction instead of attached multipart structure is a matter of obvious engineering choice. *In re Larson*, 144 USPQ 347 (CCPA 1965).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to integrate the damping box with the bent metal plate yoke of Matsui such that the hole in the damping box is a hole in the yoke. The rationale is as follows: one of ordinary skill in the art would have been motivated to arrive at the claimed integration as a matter of obvious engineering choice in order to reduce costs by decreasing a number of assembly steps as is notoriously well known in the art.

Art Unit: 2653

As recited in claims 2 and 17, Applicant's admitted prior art is silent regarding the first yoke comprising: a central wall, and two side walls, wherein through-holes are formed in the two side walls of the first yoke in a longitudinal direction of the side walls, the damping member insertable into the through-holes, and each of the plurality of suspension wires is passable through the damping member.

See teachings, rationale, and motivations for combining teachings above for claim 1, after which modification of Applicant's admitted prior art, the device would meet the above limitation insofar as damping box 18 would be part of the side walls of the first yoke of Matsui.

As recited in claims 2 and 17, Applicant's admitted prior art is silent regarding the second yoke comprising a central wall, and two side walls.

There is no invention in changing the shape of a known part, absent unexpected results due to the claimed shape.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to arrive at the claimed second yoke shape in the course of routine experimentation and optimization. The rationale is as follows: one of ordinary skill in the art would have been motivated to promote adhesion between a second yoke and a second magnet by increasing a contact surface area as is notoriously well known in the art.

As recited in claim 3, 18 and 21, Applicant's admitted prior art shows that the magnetic driving unit includes: focusing coils 54 wound along a side wall of the bobbin, tracking coils 52a-b wound on edges of the bobbin, and magnets attached to the first and second yokes.

As recited in claims 4, 7, 19 and 22, Applicant's admitted prior art shows that the tracking coils (52a, for example) are wound perpendicularly to a winding direction of the

Art Unit: 2653

focusing coils, one portion (left front portion in Fig. 1, for example) of each of the tracking coils is wound on a surface opposite to the magnet (30, for example), and the other portion (top portion in Fig. 1, for example) is wound on a surface which is not opposite to the magnets.

As recited in claims 5 and 20, Applicant's admitted prior art is silent regarding whether the magnetic driving unit includes: multipolar magnets attached to the first and the second yokes, and fine pattern focusing coils and fine pattern tracking coils installed in the bobbin opposing the multipolar magnets.

Official notice is taken of the fact that it was known in the art at the time the invention was made to provide multipolar magnets and fine pattern coils in an optical pickup. Moreover, there is no invention in duplicating existing parts for multiplied effect, absent unexpected results due to the claimed duplication. In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the magnets and tracking and focusing coils with multipolar magnets and fine pattern coils. The rationale is as follows: one of ordinary skill in the art would have been motivated to increase a Lorentz force driving the bobbin as is notoriously well known in the art.

As recited in claim 6, Applicant's admitted prior art shows focusing coils 54 wound along a side wall of the bobbin, tracking coils 52a-b wound on edges of the bobbin, and magnets (30 and 30') attached to the first and second yokes.

As recited in claim 8, Applicant's admitted prior art is silent regarding whether the inserted damping member is positioned close to an optical axis of the objective lens.

Art Unit: 2653

See teachings, rationale, and motivations for combining teachings above for claim 1, after which modification of Applicant's admitted prior art, the device would meet the above limitation, giving the limitation "close" its broadest reasonable interpretation.

As recited in claim 16, in addition to the above teachings, Applicant's admitted prior art inherently comprises a controller controlling a focusing servo and a tracking servo of the optical pickup.

Regarding claim 25: See teachings, rationale, and motivation above.

10. Claims 9-11, 13, 15 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itoh et al (US Pat. No. 5790510) in view of Matsui (US Pat. No. 5734638).

As recited in claim 9, Itoh et al show an optical pickup actuator for an objective lens, comprising: a base; a bobbin holding the objective lens; first and second wire holders installed outside the first and second yokes; a plurality of suspension wires, each having one end fixed to the first wire holder and an other end supported movably by the second wire holder, the suspension wires movably supporting the bobbin, and a magnetic driving unit driving the bobbin in focusing and tracking directions.

As recited in claim 9, Itoh et al are silent regarding first and second yokes disposed symmetrically with respect to the bobbin installed on both sides of the bobbin, and each having a central wall and two side walls; a damping member insertable into grooves in each of the two side walls of the first and second yokes; the suspension wires passing through the damping member.

As recited in claim 9, Matsui shows first and second yokes disposed symmetrically with respect to the bobbin installed on both sides of the bobbin, and a damping member rigidly

Art Unit: 2653

attached to each of the two side walls of the first and second yokes; the suspension wires passing through the damping member.

There is no invention in making one-piece integral that which was already known to be plural members rigidly attached, absent a showing that the integration involved greater than ordinary skill in the art in combination with unexpected results due to the claimed integration. In re Fridolph 135 USPQ 319 (CCPA 1962). Moreover, use of one piece construction instead of attached multipart structure is a matter of obvious engineering choice. In re Larson, 144 USPQ 347 (CCPA 1965).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the first and second yokes of Matsui to the apparatus of Itoh et al. The rationale is as follows: one of ordinary skill in the art would have been motivated to support the magnets of the pickup focus and tracking actuator, and to contain and direct a flux of said magnets as is notoriously well known in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to integrate the damping box with the bent metal plate yoke of Matsui such that the hole in the damping box is a groove in the yoke. The rationale is as follows: one of ordinary skill in the art would have been motivated to arrive at the claimed integration as a matter of obvious engineering choice in order to reduce costs by decreasing a number of assembly steps as is notoriously well known in the art.

Although Matsui is silent regarding the claimed shape of the second yoke, there is no invention in changing the shape of a known part, when said change in shape is within the level of

Art Unit: 2653

ordinary skill in the art, absent unexpected results due to the claimed shape. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to give the second yoke of Matsui the claimed shape. The rationale is as follows: one of ordinary skill in the art would have been motivated to promote magnet adhesion by increasing a contact surface area as is notoriously well known in the art.

As recited in claim 10, Itoh et al are silent regarding focusing coils wound along a side wall of the bobbin, tracking coils wound on edges of the bobbin, and magnets attached to the first and second yokes.

As recited in claim 10, Matsui shows focusing coils 12 wound along a side wall (see Fig. 2A) of the bobbin, tracking coils 13 wound on edges of the bobbin, and magnets 20 attached to the first and second yokes.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the claimed parts in the claimed location. The rationale is as follows: one of ordinary skill in the art would have been motivated to actuate the bobbin in tracking and focus directions as taught by Matsui.

As recited in claim 11, Itoh et al are silent regarding whether the magnets are insertable into central grooves formed on each of both side walls of the first and second yokes.

There is no invention in relocating parts, when the functioning of the apparatus is not changed by the relocation. In re Japikse, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950). Applicant has failed to show unexpected results due to the claimed location.

Art Unit: 2653

It would have been obvious to one of ordinary skill in the art at the time the invention was made to arrive at the claimed location of parts in the course of routine experimentation and optimization. The rationale is as follows: one of ordinary skill in the art would have been motivated to promote magnet adhesion to the yoke by increasing a contact surface area as is notoriously well known in the art.

As recited in claim 13, Itoh et al are silent regarding whether the magnetic driving unit includes multipolar magnets attached to the first and second yokes; and fine pattern focusing coils and fine pattern tracking coils disposed in the bobbin to oppose the multipolar magnets.

See teachings, rationale, and motivation above for claim 5.

Regarding claim 15: See above for claim 8.

As recited in claim 24, in addition to the teachings, rationale and motivation above, Itoh et al show each of the wires having one end fixed to one of wire holders and another end supported movably by another wire holder, and movably supporting the bobbin.

Allowable Subject Matter

11. Claims 12 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nishihara et al (US Pat. No. 5892629) show an objective lens actuator comprising support holder 37 (see especially Figs. 13-14).

Hong et al (US PAP No. 2005/0195702 A1) show a yoke plate for optical pick-up; however, the reference was filed after Applicant's filing date.

13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie Anne Watko whose telephone number is (571) 272-7597. The examiner can normally be reached on T11A-5P W3P-9PTh11:30A-10P F10A-8:30P SatNoon-8:30P.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne D. Bost can be reached on (571) 272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Julie Anne Watko
Primary Examiner
Art Unit 2653

March 9, 2006
JAW

